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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,850	02/01/2006	James Daniel Asbury	225300-10849	9756

44200 7590 11/23/2010

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EXAMINER	
CLARK, GREGORY D	

ART UNIT	PAPER NUMBER
1786	

MAIL DATE	DELIVERY MODE
11/23/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/566,850	ASBURY ET AL.	
	Examiner	Art Unit	
	GREGORY CLARK	1786	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 September 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,6,9-14,18,19,22 and 23* is/are pending in the application.

4a) Of the above claim(s) *4-8,15-17,20 and 21* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,9-14,18,19,22-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The examiner acknowledges the receipt of applicants' amended claims and arguments dated 09/27/2010.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. **Claims 1-3, 9-14, 18-19 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (2004/0124668) in view of Sandrin (Applied Surface Science, Vol. 135, (1998), p. 339-349).**

2. **Regarding Claims 1, 3 and 24,** the applicant claims a interior vehicle roof panel having a non-flat contour that includes:

- first polymer material having heat absorbing properties
- second polymer (bonded to the first polymer) having heat reflecting properties said metalized second polymer is heat formable
- metalized layer is formed to define a non-flat topography.

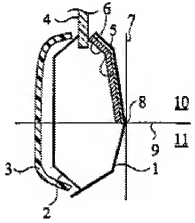
Ogawa discloses a vehicle panel structure which includes an outer panel, an inner panel facing the outer panel, and a trim of a cabin interior (headliner). At least one

surface of a back surface of the outer panel functions as a heat insulation and heat dissipation section to insulate heat for the surface (abstract).

Ogawa discloses that the insulation/ reflection construction can be polyethylene terephthalate (PET) (corresponding to applicants' polymer 1) with an aluminum layer (corresponding to applicants' polymer 2, per claims 3 and 24 [metalized]) deposited there on attached by an epoxy resin adhesive (paragraph 83).

Figure 5B (sheet 4 of 9) shows that the insulating (absorption) material 6 (corresponding to applicants' polymer 1) is attached to the heat reflection layer 5 (corresponding to applicants' polymer 2) which is bonded directly to the inside portion of the non-flat outer vehicle panel 1 (paragraph 63) without an air gap.

FIG.5B



The film matches the contour of the adjacent vehicle surface.

Ogawa further discloses the heat insulating materials can be applied in a host of areas of the vehicles which include: a door trim, a door inner panel, a head lining (claimed by applicant), a pillar garnish, a door damp proof sheet, and the like

(paragraph 46). Ogawa fails to mention the attachment of the heat insulation layer (PET) and the heat reflection layer (deposited aluminum) without the use of an adhesive.

Sandrin discloses that PET can be subjected to a corona treatment (abstract) which oxidizes the PET surface which results in an enormous increase in adhesion to aluminum (page 347).

Ogawa uses an epoxy adhesive to bond Al to PET and Sandrin uses corona treatment without an adhesive to bond Al to PET. The use of an adhesive and corona treatment are viewed as equivalent methods to achieve a suitable bond between PET and Al. In addition, the corona treatment is viewed as an advantage that would eliminate the need for an adhesive layer.

It would have been obvious to a person of ordinary skill in art at the time of the invention to have selected from known methods to adhere PET to Al which would have included the corona treatment disclosed by Sandrin which avoids the need for an adhesive layer.

3. **Regarding Claims 2,** Ogawa in view of Sardrin discloses that the PET is deposited on to the PET surface (page 347). Sardrin discloses that the aluminum is thermally evaporated on to the PET surface (abstract) which constitutes a heat formable metalized layer.

4. **Regarding Claims 9 and 14,** Ogawa teaches in figure 5B (sheet 4 of 9) that the insulation/ reflection construction is applied to the inside portion of an outer vehicle panel 1, a non-flat outer vehicle panel. The film matches the contour of outer vehicle panel 1. The insulative/ absorbing layer 6 is bonded to the reflection layer 5 which is directly attached to outer vehicle panel 1. The insulative/ absorbing layer 6 is bonded to the reflection layer 5 without an adhesive was discussed above. The multilayer construction (layers 5 and 6) are positioned on the inboard surface of the outer panel 1 without an air gap and both layers are located between outer panel 1 and the interior panel 2 (paragraph 63).

Ogawa further discloses such heat insulating materials can be applied in a host of area of the vehicles which include: a door trim, a door inner panel, a head lining, a pillar garnish, a door damp proof sheet, and the like (paragraph 46) (per claim 14).

Ogawa further discloses that a heat insulator sheet can be added to the assembly (paragraph 57) which can be a fabric (paragraph 58).

5. **Regarding Claims 10-13,** Ogawa discloses that the insulation/ reflection construction can be polyethylene terephthalate (PET) (insulating material, per claim 12) (corresponding to applicants' first material) (per claim 11) with an aluminum layer (corresponding to applicants' second material) (per claim 11) deposited there on attached by an epoxy resin adhesive (paragraph 83). Attaching PET to Al without an adhesive was discussed in section 2 (per claim 10).

Ogawa discloses also discloses that the insulating material can be polypropylene (paragraph 46) (per claim 13).

6. **Regarding Claim 18**, Ogawa discloses such heat insulating materials can be applied in a host of area of the vehicles which include: a door trim, a door inner panel, a head lining (paragraph 46). Ogawa in view of Sandrin teach an insulative /reflecting construction that reads on applicants' first material and second material as discussed above.

Figure 5B above shows one example of the insulative /reflecting construction applied without an airgap to the door trim. As Ogawa also teaches that the insulative /reflecting construction can be used on the head lining (paragraph 46), the analogous application of the insulative /reflecting construction would read upon the limitation of claim 18 as one skilled in the art would position the insulative /reflecting construction in various based on the guidance of Ogawa to achieve suitable insulation and reflecting properties.

As Ogawa in view of Sandrin teach a multilayered insulative /reflecting construction that reads on applicants' first and second materials that can be used as a head liner, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have applied the insulative /reflecting construction in various locations to optimize the insulating and reflection properties which would have included the instant limitations.

7. **Regarding Claim 19**, Ogawa discloses the use of metalized PET (paragraph 83).

8. **Regarding Claim 22,** Ogawa discloses such heat insulating materials can be applied in a host of area of the vehicles which include: a door trim, a door inner panel, a head lining (paragraph 46). The head liner would be considered as the roof portion. Ogawa discloses a construction where an insulating layer is applied to the opposite face of the metalized layer (paragraph 63).

9. **Regarding Claim 23,** Ogawa discloses that the heat insulating sheet (second layer) can be selected from a fabric (paragraph 58).

10. **Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (2004/0124668) in view of Sandrin (Applied Surface Science, Vol. 135, (1998), p. 339-349) and Sandoe (US2001/0036788).**

11. **Regarding Claims 25-26,** Ogawa and Sandrin teach the inventions of claim 9 and 18 as discussed above. Ogawa fails to mention a decorative layer.

Sandoe discloses a decorative fabric (layer) applied to a headliner in the ceiling of the passenger compartment (paragraph 26).

The presence of a decorative layer is viewed as a common feature that is based on enhancing the attractiveness of the passenger compartment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have improved the attractiveness of the passenger compartment which would have included affixing a decorative fabric layer as taught by Sandoe which reads on the instant limitations, absent unexpected results.

Response to Amendment/Argument

Applicants' argues that Ogawa and Sandrin fail to teach a decorative layer disposed on the inboard surface of the core layer and exposed to the passenger compartment.

Sandoe discloses a decorative fabric (layer) applied to a headliner in the ceiling of the passenger compartment (paragraph 26).

The presence of a decorative layer is viewed as a common feature that is based on enhancing the attractiveness of the passenger compartment.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have improved the attractiveness of the passenger compartment which would have included affixing a decorative fabric layer as taught by Sandoe which reads on the instant limitations, absent unexpected results.

Applicant argues the Ogawa's assembly contains an air gap between outer and inner regions.

The examiner maintains the position that Ogawa shows Figure 5B (sheet 4 of 9) shows that the insulating (absorption) material 6 (corresponding to applicants' polymer 1) is attached to the heat reflection layer 5 (corresponding to applicants' polymer 2)

which is bonded directly to the inside portion of the non-flat outer vehicle panel 1 (paragraph 63) without an air gap.

The applicant's arguments with respect to the pending claims have been considered but are moot in view of the new grounds of rejection necessitated by the applicant's amendment.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY CLARK whose telephone number is (571)270-7087. The examiner can normally be reached on M-Th 7:00 AM to 5 PM Alternating Fri 7:30 AM to 4 PM and Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 1786

GREGORY CLARK/GDC/
Examiner
Art Unit 1786